

**U.S. Pat. Appl. Ser. No. 10/538,124  
Attorney Docket No. 10191/3806  
Reply to Office Action of April 30, 2008**

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing Of Claims:**

1-11. (Canceled).

12. (Currently Amended) [[The]] A circuit configuration ~~as recited in Claim 11 for operating a gas sensor, comprising:~~

a structure including a reference gas space;

a reference electrode situated in the reference gas space;

a current source for supplying a reference pump current to the reference electrode;

and

a diagnostic system including a timer, wherein the diagnostic system:

delivers a current selection signal to the current source for setting the reference pump current during a diagnostic operation of the gas sensor;

delivers a switch signal to the timer for starting the timer;

evaluates a sensor signal of the gas sensor during diagnostic operation based on time; and

evaluates a rate of change of the sensor signal.

13. (Currently Amended) The circuit configuration as recited in Claim [[11]] 12, wherein the diagnostic system includes a comparator that compares the sensor signal with a threshold value to produce a comparison result and supplies a diagnostic signal as a function of the comparison result.

14. (Previously Presented) The circuit configuration as recited in Claim 13, wherein the diagnostic signal stops the timer.

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15. (Currently Amended) [[The]] A circuit configuration as recited in ~~Claim 14 for~~  
operating a gas sensor, comprising:

a structure including a reference gas space;

a reference electrode situated in the reference gas space;

a current source for supplying a reference pump current to the reference electrode;

and

a diagnostic system including a timer, wherein:

the diagnostic system delivers a current selection signal to the current source  
for setting the reference pump current during a diagnostic operation of the gas sensor;

the diagnostic system delivers a switch signal to the timer for starting the  
timer;

the diagnostic system evaluates a sensor signal of the gas sensor during  
diagnostic operation based on time;

the diagnostic system includes a comparator that compares the sensor signal  
with a threshold value to produce a comparison result and supplies a diagnostic signal  
as a function of the comparison result;

the diagnostic signal stops the timer;

the timer supplies an end signal that represents a time elapsed, and

the current selection signal is set as a function of the end signal for operating  
the gas sensor outside of the diagnostic operation.

16. (Previously Presented) The circuit configuration as recited in Claim 15, wherein a  
time determinable by the timer is set at a maximum time.

17. (Currently Amended) The circuit configuration as recited in Claim 15, wherein the  
current selection signal one of shuts down and triggers the current source to supply a negative  
reference pump current and shuts down the current source.

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18. (Currently Amended) The circuit configuration as recited in Claim [[11]] 12, further comprising:

a resistor, wherein:

the reference electrode is permanently connected to a predefined potential across the resistor, and

a discharge current flowing across the resistor pumps out a reference gas.

19. (Currently Amended) The circuit configuration as recited in Claim [[11]] 12, wherein the gas sensor is a lambda sensor and the reference gas space contains oxygen as a reference gas.

20. (Currently Amended) The circuit configuration as recited in Claim [[9]] 19, wherein the lambda sensor is situated in an exhaust gas system of an internal combustion engine and an enable signal [[(48)]] triggers the diagnosis after shutdown of the internal combustion engine.

21. (New) The circuit configuration as recited in Claim 15, further comprising:  
a resistor, wherein:

the reference electrode is permanently connected to a predefined potential across the resistor, and

a discharge current flowing across the resistor pumps out a reference gas.

22. (New) The circuit configuration as recited in Claim 15, wherein the gas sensor is a lambda sensor and the reference gas space contains oxygen as a reference gas.

23. (New) The circuit configuration as recited in Claim 22, wherein the lambda sensor is situated in an exhaust gas system of an internal combustion engine and an enable signal triggers the diagnosis after shutdown of the internal combustion engine.